

FLD 479

CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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50X1-HUM

COUNTRY	East Germany	REPORT	
SUBJECT	Das Institut fuer Werkstoffkunde, Dresden	DATE DISTR.	19 October 1953
DATE OF INFO.		NO. OF PAGES	2
PLACE ACQUIRED		REQUIREMENT NO.	RD
		REFERENCES	50X1-HUM

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1. Das Institut fuer Werkstoffkunde, Dresden Technical University, Dresden, collaborated in technical matters with a number of East German establishments as indicated in the following paragraphs. Prof. Eisenkolb was the director of the Institut.
2. The Transformatoren-und Roentgenwerk, Dresden, VEB (formerly Koch and Sterzel) used contact material for electrical switches developed by the Institut. This material was produced by a powder metallurgy process and then tested at the factory for load capacity through the repeated opening and closing of the switch at a definite current strength and phase angle. Small to medium-sized contacts were being built. The method of production was well-known and based largely on Polish publications. Chemist Dziuba was the technical expert on this development.
3. For the Applied Mathematics Institute, Dresden Technische Hochschule, very small to medium-sized soft magnetic core trays of permalloy or permennorm type were being annealed by a special process. The objective was to obtain definite permeability values, either maximum values or values which increased with the increase in field constant. It was reported at the Institut fuer Werkstoffkunde that these core trays and band cores were to be used for calculating machines. The Applied Mathematical Institute in turn collaborated with an unidentified industrial establishment on this project. The director of the AMI was Prof. Willers.
4. Close connections with the VEB Auerhammer, Aue, Saxony were maintained by Dr. Rassmann. The VEB Auerhammer was primarily concerned with the drawing, rolling, and smelting of special materials, and produced chiefly soft magnetic materials. Das Institut fuer Werkstoffkunde controlled the quality of this material. When the VEB Auerhammer obtained better control equipment, the relations between it and the Institut were strained.

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- 2 -

5. Professor Eisenkolb frequently exchanged ideas with Dr. Brueggemann, chief of the research department of the Eisenhuettenwerk Thale, Harz, in the fields of sheet metal research and powder metallurgy. Prof. Eisenkolb was at one time employed at the Eisenhuettenwerk Thale.
6. The Institut developed material for watch springs for the Volkseigene Uhrenindustrie, Glashuette, Saxony. The important point was to develop material with a spring constant independent of temperature changes. The testing of this material was undertaken at the factory, while the measurement of the modulus of the elasticity was done at the Institut. Dr. Lindner supervised the technical phases of this work.
7. Professor Eisenkolb and Dr. Rassmann acted as advisors to the Siemens-Soernewitz VEB (near Dresden) in the smelting and subsequent treatment of heat-conducting alloys, of chromium, aluminum, and nickel with iron. These alloys formerly had to be imported.
8. The Institut was associated closely with the Institute for Special Materials, Dresden, because of the fact that Prof. Eisenkolb directed both. However, the latter institute was subordinate to the Ministry of Mining and Metallurgy and therefore had no direct connection with the Dresden Technical University and its rector. Principal scientists of the Institute for Special Materials were Dr. Rassmann (deputy director of the Institut), Dr. Lindner and Dr. Strobel. For the most part, projects formerly carried on in the Institut fuer Werkstoffkunde have been taken over by the Institute for Special Materials. There was, however, no sharp boundary between the research projects of the two institutes. Essentially, materials resulting from powder metallurgical processes were developed by Prof. Eisenkolb and materials with special physical properties by Dr. Rassmann. Dr. Strobel collaborated with Prof. Eisenkolb early this year on research contracts concerned with the powder metallurgical synthesis of ceramic and metal powders to form ceramic-metallic masses. Dr. Lindner assisted Dr. Rassmann and specialized on smelting, casting, rolling and drawing processes. The Institut was in the process of formation. The workshop containing smelting and rolling equipment, powder mills and work benches, was made ready in 1952 and has been equipped, for the most part. The laboratory building was under construction early in 1953. It was noteworthy that the workshop contained two high frequency installations for smelting (thermionic oscillators). A generator and vacuum annealing and smelting oven were in the process of installation.
9. Chemist Thuemmler, who in early 1953 was chief assistant of the Institut fuer Werkstoffkunde, or Dr. Wahle (Siemens-Soernewitz), was expected to head the chemical department of the Institute for Special Materials.
10. Politically, the members of the Institut named in this report were inactive, including Thuemmler and Dr. Rassmann, who were, however, privately opposed to the system.

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